

## Appendix F

### Application of 9°C to Protect Bull Trout Spawning & Incubation

WRIA <sup>1</sup>	EPA finding: for Application of 9°C	Information from WDFW Bull Trout SaSI Report (WDFW 1998)	Additional Information
<b>WRIA 27 – Lewis River</b>			
Pine creek	Aug 21– May 15	Radio tagging studies indicate spawning occurs late August – mid Sept. (WDFW 1998, pg 183).	
Cougar Creek	Aug 21– May 15		Pine, Rush, and Cougar are all groundwater feed and have cold temperatures (~43F). Redds are difficult to verify due to mobile and very fine substrate (Jim Bryne, WDFW, Pers. Comm. 11/17/05). Adfluvial bull trout in spawning condition were observed as early as 8/4/05 and have continuous presence to 11/9/05 (Jim Bryne, WDFW, Pers. Comm. 11/17/05).
Rush Creek	Aug 21– May 15	Radio tagging studies indicate spawning occurs late August – mid Sept. (WDFW 1998, pg 183).	
<b>WRIA 32 – Walla Walla</b>			
Mill Creek	Sept 1– May 15	Spawning timing early September – Oct. (WDFW 1998).	Spawning in most streams of SE Washington occurs at the very end of August to first part of September. By Sept. 5 <sup>th</sup> numerous redds are observed in most SE Washington streams (G. Mendel, WDFW, Pers. Comm. 11/28/05).
<b>North Fork Touchet River –</b>	Sept 1– May 15	Late August through early Oct. (WDFW 1998 pg201).	Spawning in most streams of SE Washington occurs at the very end of August to first part of September. By Sept. 5 <sup>th</sup> numerous redds are observed in most SE Washington streams (G. Mendel, WDFW, Pers. Comm. 11/28/05).
<b>Wolf Fork</b>	Aug 21– May 15	Late August through early Oct. (WDFW 1998 pg201).	Wolf Fork is an exceptional stream in the area in that bull trout spawn in late August. Earliest survey ever conducted found 12 redds 8/31 (G. Mendel, WDFW, Pers. Comm. 11/28/05).
<b>South Fork Touchet River</b>	Sept 1– May 15	Late August through early Oct. (WDFW 1998 pg201).	Spawning in most streams of SE Washington occurs at the very end of August to first part of September. By Sept. 5 <sup>th</sup> numerous redds are observed in most SE Washington streams (G. Mendel, WDFW, Pers. Comm. 11/28/05).
<b>WRIA 35 – Middle Snake</b>			
Tucannon River	Sept 1– May 15	Upper Tucannon early Sept-mid Nov noted in SaSI (WDFW 1998).	Recent spawning surveys verify this Sept. 1 start date (G. Mendel, WDFW, Pers. Comm. 11/23/05). Many redds observed 1 <sup>st</sup> week of Sept. 2005.

<b>WRIA</b>	<b>EPA finding: starting date for Application of 9°C.</b>	<b>Information from WDFW Bull Trout SaSI Report (WDFW 1998)</b>	<b>Additional Information</b>
Butte Creek	Sept 1– May 15		Recent spawning surveys verify Sept. 1 start date (G. Mendel, WDFW, Pers. Comm. 11/23/05). 38 redds counted on first survey data of 9/13 in 2005.
N.F. Wenaha (Oregon border upstream to the upper forks)	Sept 1– May 15		Earliest redds observed 9/6 in 2005 with peak spawning in mid September (Pers. Comm. G. Mendel, WDFW 11/18/05).
Asotin Creek	Sept 1– May 15		Recent spawning surveys verify Sept 1 start date (G. Mendel, WDFW, Pers. Comm. 11/23/05).
<b>WRIA 37 – Lower Yakima R.</b>			
Upper Ahtanum Creek (This includes all Ahtanum Creek spawning areas)	Sept 1– May 15	Spawn in NF Ahtanum in Sept. (WDFW 1998).	Earliest redds recorded 9/1 over 13 year survey record (E. Anderson, WDFW, Pers. Comm. 11/22/05).
<b>WRIA 38 – Naches River</b>			
<b>Tieton River-South Fork (includes tributaries)</b>	Sept 1– May 15	Tieton R. in late Aug-early Oct., and late Aug-mid Sept. (WDFW 1998).	Earliest redds recorded 8/31 over 14 year survey record (E. Anderson, WDFW, Pers. Comm. 11/22/05). USFWS notes spawning Sept 1-late Sept. (J. DeLaVergne, USFWS, Pers. Comm. 7/15/05).
<b>Deep Creek</b>	Aug 21– May 15		Earliest redds recorded 8/24 over 17 year survey record (E. Anderson, WDFW, Pers. Comm. 11/22/05).
<b>Indian Creek</b>	Sept 1– May 15		Earliest redds recorded 9/2 over 22 year survey record (E. Anderson, WDFW, Pers. Comm. 11/22/05).
<b>American River</b>	Sept 1– May 15	Spawn in Naches River basin upper (American R., Rattlesnake Cr.) in Sept., (WDFW 1998).	Earliest redds recorded 8/31 over 10 year survey record (E. Anderson, WDFW, Pers. Comm. 11/22/05). USFWS notes spawning last week Aug-Sept 30 (J. DeLaVergne, USFWS, Pers. Comm. 7/15/05).
<b>Rattlesnake Creek (incl. Dog and Shell creeks)</b>	Sept 1– May 15	Spawn in Naches River basin upper (American R., Rattlesnake Cr.) in Sept. (WDFW 1998).	Earliest redds recorded 9/6 over 13 year survey record (E. Anderson, WDFW, Pers. Comm. 11/22/05). USFWS notes spawning Sept 1-Oct 1 (J. DeLaVergne, USFWS, Pers. Comm. 7/15/05).
<b>Crow Creek</b>	Sept 1– May 15		Earliest redds recorded 9/2 over 7 year survey record (E. Anderson, WDFW, Pers. Comm. 11/22/05). USFWS notes spawning Sept 1-Oct 1 (J. DeLaVergne, USFWS, Pers. Comm. 7/15/05).
<b>WRIA 45 – Wenatchee River (tributaries)</b>			
<b>Panther Creek</b>	Sept 1– May 15	Early Sept-mid Oct. (WDFW 1998).	2 <sup>nd</sup> week Sept.-mid Oct. (J. DeLaVergne, USFWS, Pers. Comm. 10/6/05).

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<b>WRIA 48 – Methow</b>			
<b>Upper Methow-west fork</b>	Sept 1– May 15	Spawning early Sept-Mid Oct., (WDFW 1998).	USFWS notes spawning mid Aug-mid Oct (J. DeLaVergne, USFWS, Pers. Comm. 7/29/05).
Twisp River (incl. Reynolds, North, and Buttermilk creeks).	Sept 1– May 15	Spawning early Sept-Mid Oct., (WDFW 1998).	USFWS notes spawning Sept 1-mid Oct (J. DeLaVergne, USFWS, Pers. Comm. 7/29/05).
<b>Early Winters Creek – (incl. Cedar Cr.)</b>	Sept 1– May 15	Spawning early Sept-Mid Oct., (WDFW 1998).	USFWS notes spawning Sept 1-late Oct (J. DeLaVergne, USFWS, Pers. Comm. 7/29/05).
<b>Goat Creek –</b>	Sept 1– May 15	Spawning early Sept-Mid Oct., (WDFW 1998).	USFWS notes spawning Sept 1-late Oct (J. DeLaVergne, USFWS, Pers. Comm. 7/29/05).
<b>Wolf Creek</b>	Sept 1– May 15	Spawning early Sept-Mid Oct., (WDFW 1998).	USFWS notes spawning Sept 1-late Oct (J. DeLaVergne, USFWS, Pers. Comm. 7/29/05).
<b>Lost River (includes Monument Cr.)</b>	Sept 1– May 15	Spawning early Sept-Mid Oct., (WDFW 1998).	USFWS notes spawning Sept 1-Mid Oct (J. DeLaVergne, USFWS, Pers. Comm. 7/29/05).

1. For the exact locations regarding EPA’s disapproval action and application of 9°C see EPA’s GIS maps titled *Application of 13°C and 9°C to Protect Spawning and Incubation*.